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**Improving delivery of hospital care in Kenya –
Understanding how health workers and contexts
influence change**

By Jacinta Mwikali Nzinga

Thesis Presented for the Degree of Doctor of
Philosophy Health and Social Studies, Warwick
Medical School, University of Warwick, United
Kingdom

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*"You can only become truly accomplished at something you love. Pursue the things you love doing, and then do them so well that people can't take their eyes off you"-
Maya Angelou*

DECLARATION

I, Jacinta Mwikali Nzinga, declare that this thesis was submitted to the University of Warwick in support of my application for the degree of Doctor of Philosophy. It has been composed by myself and has not been submitted in any previous application for any degree.

The work presented was carried out by the author with support of the undersigned collaborating authors:

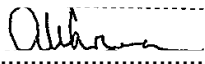
Paper 1: Documenting the experiences of health workers expected to implement guidelines during an intervention study in Kenyan hospitals

Patrick Mbindyo, Lairumbi Mbaabu, Ann Warira and Mike English

Jacinta Nzinga undertook all the interviews, and undertook the qualitative analysis supported by other co-authors. Jacinta Nzinga produced the first draft manuscript to which all authors contributed during its development before production of the final draft. All authors approved the final version of the report.

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Paper 2: Implementation experience during an eighteen month intervention to improve paediatric and newborn care in Kenyan district hospitals

Jacinta Nzinga, Stephen Ntoburi, John Wagai, Patrick Mbindyo, Lairumbi Mbaabu, Santau Migiro3, Annah Wamae, Grace Irimu and Mike English

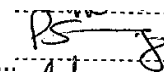
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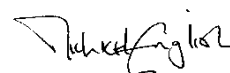
Paper 3: Service delivery in Kenyan district hospitals – what can we learn from literature on mid-level managers?

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Jacinta Nzinga conceived of the idea for the manuscript, searched the literature, abstracted the data and conducted the analyses before preparing a first draft.

Jacinta Nzinga critically reviewed the articles included in the review with contributions to the analytical interpretation of the data from other co-authors. All co-authors provided inputs to the preparation of the draft. All authors read and approved the final manuscript.

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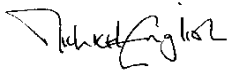
Paper 4: Clinical managers in Kenyan hospitals: Hybrid roles, identities, institutional logics and their implications for improving health services in low income countries

Jacinta Nzinga, Gerry McGivern, Richard Lilford and Mike English

Jacinta Nzinga conceived of the idea for the study supported by Mike English. Preparation for and conduct of the study was undertaken by Jacinta Nzinga who also undertook all the interviews, observations and the qualitative analysis. Gerry McGivern provided theoretical support during analysis and write up. All co-authors contributed to the analytical interpretation of the data both in discussion with Jacinta Nzinga. Jacinta Nzinga produced drafts of manuscript, which all authors read and commented on.

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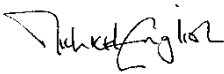
Mike English..... 

Paper 4: A distributed lens on middle level clinical leadership in Kenyan public hospitals

Jacinta Nzinga, Gerry McGivern and Mike English

Jacinta Nzinga conceived of the idea for the study supported by Mike English. Preparation for and conduct of the study was undertaken by Jacinta Nzinga who also undertook all the interviews, observations and the qualitative analysis with support from Mike English and Gerry McGivern E. Gerry McGivern provided theoretical support during data collection, analysis and write up. All co-authors also contributed to the analytical interpretation of the data in discussion with Jacinta Nzinga. Jacinta Nzinga produced drafts of manuscript, which all authors, read and commented on.

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DEDICATION

This thesis is dedicated to my beloved children Imani, Neema, Kweli and to the love of my life, Onyango Sangoro

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Abstract

Introduction: Despite considerable efforts directed at developing international evidence based guidelines to improve clinical management, adoption of evidence based practices can be poor in low-income settings including Kenya. Studies in Africa rarely consider the implementation and change processes as influenced by the structural and organizational context in which clinicians are embedded nor how these can influence performance. This thesis builds on existing literature and theory on behavioural change, clinician-managers' identity construction processes and contextualized leadership processes by examining these and their effect on guideline adoption in the complex contexts of Kenyan county hospitals.

Methods: Methodologically I explored these issues through qualitative ethnographic approaches using in-depth interviews, focus group discussions and non-participant observations. I analyzed data inductively and deductively borrowing from the grounded theory approach to develop plausible explanations of collated data and observations.

Results: Early work indicated limited attention to local dissemination of the new guidelines and poor leadership in implementing Evidence Based Medicine (EBM) as key barriers. However, specially introduced 'study facilitators' as part of an intervention study emerged as leaders of change often acting as role models, friendly supervisors and peer educators to facilitate EBM implementation. Further work reviewing literature on the roles of clinical mid-level managers (MLMs; department leaders) in improving service delivery emphasized the importance of 'soft skills' e.g. building interpersonal relationships, mentoring, coaching and effective communication skills. Subsequent in-depth empiric work on identity transitions of these clinical MLMs indicated that 'identity work', drawing on competing professional and managerial institutional logics resulted into 'willing', 'ambivalent' and 'reluctant' hybrids. Distributed leadership by hybrids was undermined by existing hierarchical professional autonomy and cadre delineations between nurses and doctors in the public county hospitals we

studied

Discussion: The thesis describes both a set of work and a research journey. My initial work was predominantly based on applying the Theory of Planned Behaviour to explain behaviour of front-line health workers. However, it quickly became clear that this provided only a partial understanding of guideline adoption within a hospital overlooking the pivotal role of clinical team leaders / in influencing change. There emerged valuable lessons for current Kenyan leadership and management development programmes which are likely to be transferable to other African health systems. Particular recommendations from this work are the importance of a focus on the soft-skills of those stepping into clinical hybrid manager roles and considering the 'practical norms' of Kenyan public hospitals in understanding the gap between desired official institutional norms and health workers actual behavioural practices.

1 Short narrative overview of the thesis document and accompanying papers

In this brief section I provide a short overview of the structure and contents of this thesis document and the individual papers on which it is based. Below I briefly outline the practical concern around adoption of clinical practice guidelines in Kenyan hospitals that my work sought to address. I provide more detail on the Kenyan context and the nature of the broader project in which initial work was nested in section 1 and Papers I & II. I continue to briefly outline the evolution of the work through the five papers presented and its rationale. The wider body of theory I explored as a result is summarized in sections 2.1 to 2.4 of this thesis document, with additional information in papers IV & V. In this short overview I highlight results and indicate where these are presented and discussed in greater detail in the thesis document and papers.

For those reading the whole thesis I would recommend that after this short overview section 2 is read. Then all individual papers can be read before returning to section 4 of this document where I provide an overview of the results from across the five papers and finally, section 5 where I discuss the results and how these papers relate.

1.1 A brief overview of the thesis

There is increasing recognition that providing better health care (and thus better health for citizens) will require health system strengthening [1]. In resource poor settings such as Kenya, the county (formerly district) hospital is an important part of the health system delivering essential health care services to more than 80% of the population[2]. However, the functioning of these hospitals is complex and the formal and informal rules regulating them are not well understood. What has been described is that quality of care for children can be poor with limited adoption of practices recommended in clinical guidelines[3, 4]

My interest was in what influences the adoption of better practices and, as a strongly emerging theme, how this is influenced by hospital health workers' interaction with the structural and organizational context in which they are embedded. I had a particular interest in how health workers, especially those at middle levels of management, influence performance. This PhD examined these issues during a period when efforts to improve service delivery in Kenyan hospitals were being made. It explored whether change that occurs depends on health workers' responses to improvement efforts; especially the actions of those expected to lead and the hospital context they are in.

My initial doctoral research explored the nature of the intervention project aimed at improving hospital care for children and health workers' responses to it. The project was a multi-component intervention project focusing on promoting use of clinical practice guidelines (clinical practice guidelines (CPGs), a key tool of evidence based medicine) in pediatric inpatient settings. My work documented health workers' experiences in implementing the intervention and barriers to adoption of the CPGs in particular. This work drew on the Theory of Planned Behavior and the work of behavioral psychologists who sought to define a typology of barriers to the adoption of guidelines (Refer to Paper 1)[5]. Linked work aimed to characterize whether there was evidence that the planned interventions were likely to be acting as 'behavioral levers' in the way anticipated (Refer to Paper II)[6]

While this research was illuminating, and helped to explain the results of the intervention study, it also raised two key questions. Firstly, how do district hospitals as organizations function and secondly, how do these contexts and health workers together influence efforts to improve or change services? Thirdly and clearly linked, was the idea that implementation efforts ought to go beyond a focus on individual behavior and examine the important social relationships that shape the way care is provided in such hospitals. Thirdly, it became clear from an organizational perspective that the roles of those ‘in charge’ of service delivery (clinical team leaders or Middle Level Managers (MLMs)) were pivotal in this process. These revelations contributed to a shift in the focus of my work towards consideration of the potential importance of MLMs. This shift led to a narrative review exploring what was already known on this topic and consideration of the applicability of this literature to hospitals in Kenya and other low income countries (Refer to Paper III).

The results of the literature review prompted – acknowledging the theoretical limitations encountered earlier – work to understand the role of MLMs in influencing behaviors and changing practices of front-line workers (followers). To undertake this work I explored distributed leadership theory, identity theory and institutional logics. This informed new empirical work aiming to examine the importance of managers’ social relations in the way care is provided in Kenyan hospitals. The new phase of work adopted an ethnographic approach and organizational theoretical frameworks (e.g. identity work, institutional logics, distributed leadership and relational leadership) to explore clinician- manager transitions and their routine micro-practices (Refer to Papers IV & V)

In drawing together, the body of work across the five papers I present an overview of the results in section 2.0. This section also summarizes the key theoretical, methodological and practical lessons learned while undertaking the work forming this thesis. Finally, in the discussion section (Section 3.0) of this document I link the main ideas presented in each paper to support the argument that the interaction of health workers, middle managers and the contexts within which

they are embedded influences service delivery. I also present the main study limitations and the implications of this research. In section 4.0 I present the study's overall conclusions.

2 Introduction

This thesis examines the role of context, the actions of front-line clinical workers, or mid-level 'hybrid' clinical leaders, as part of a wider distributed leadership constellation involved in the implementation of EBM and provides lessons to improve the quality of hospital care for children in Kenyan county hospitals.

In this introduction, I set the scene for the PhD work by introducing the key concepts that underpin the scope of work presented in this thesis and by reviewing key literature around these concepts. For some years there has been considerable interest in understanding why clinicians do not comply with EBM and exploration of ways to increase this compliance [3]. Much of this work has concentrated on high income countries. I argue that understanding this requires a detailed exploration of how clinicians perform or enact roles required of them to promote adoption of EBM and in particular their use of clinical practice guidelines. To understand this process, it is important to appreciate that the resulting impact (typically measured as compliance with CPG recommendations) will be a product of an interplay of agency, structure, context and complex social interactions amongst staff at all levels of the organization[7]. Thus research should emphasize the interactive nature of personal, structural and organizational factors and the contribution of social mechanisms in influencing not just individuals' behavior but that of entire organizations [8]. However, research taking such perspectives and applying them to understand adoption of CPGs in low-income countries is rare.

To support and justify the strategy taken in conducting this research I briefly introduce and review theory which can help explain the complexity of hospitals, focusing on the powerful professionals that are its main actors and their compliance with EBM. I continue to explore why clinicians may be more or less engaged with efforts to adopt CPGs as part of improving the quality of health care using identity work and distributed leadership theories, specifically situated in the Kenyan county hospital context.

2.1 Professionalism and implementation of EBM

EBM is a major development in health care, which aims to improve patient outcomes through the use and adoption of appropriate knowledge, updated evidence and standardized approaches to patient management [9]. The assumption is that the introduction of EBM would shift medicine from deterministic to probabilistic practice. Clinical practice guidelines are a key tool in EBM. These aim for simplicity, conciseness and practicality in codifying recommended (or best) clinical practice to disseminate proven diagnostic and therapeutic knowledge[10].

In essence, EBM is based on 'logical rules' and its implementation primarily assumed health workers would follow it as best practice. Until recently, in some contexts and particularly in low-income countries, individuals and teams have been characterized by poor adoption of recommended practices into routine hospital processes[11, 12]. One explanation for this is the perception that this was an attempt aimed at regulating the medical profession by re- distributing professionals' autonomy [13]. The 'indeterminate'[14] nature of medical professional knowledge and practice has traditionally provided clinicians with professional and regulatory autonomy. Freidson [15] argues that this autonomy is granted on the basis of their claims of 'technical' and 'moral' authority – the idea that only fellow clinicians (a) understand and are (b) ethically trained to regulate the practice of their fellow professionals[16]. Accordingly, efforts to understand EBM adoption must take account of the notion of professionalism[9].

2.2 Clinical-Managers “Hybrids” and an institutional approach to “hybridity”

While medical professions have traditionally dominated health care systems around the world, the introduction of New Public Management (NPM), which introduced measurement, management and markets into health care, challenged medical dominance[17, 18]. NPM reforms put clinicians in managerial roles. Such individuals often occupy a key position to mediate between traditional ways of conducting professional work and implementing managerial norms that challenge

professional autonomy[13]. Thus there is increased interest amongst professionals in who hybrid clinical managers are and what their role is in service improvement [19-22]. This thesis contributes to this emerging literature

Current literature describes professional hybrids as individuals with a professional background who have moved into formal managerial roles that also require them to retain leadership influence within their professional group [23-25]. They retain clinical but at the same time play a significant part in matters of strategic direction, operational resource management and collaborative working with colleagues in their own and other clinical professions.

Institutional logics also provide a useful framework to understanding hybrid identities [26, 27]. Institutional logics are the belief system through which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality[28]. Thus hybridity can be understood as incorporation of aspects of one institutional logic (e. g. of the manager) within another different logic (perhaps professional) to create co-existing logics[29]. Actors then simultaneously draw on different logics to construct their identities[26, 30]. However, how actors manage and interpret this integration varies with individuals, institutional environments and local social contexts

2.3 Clinical leadership and distributed leadership in hospitals

Leadership has been defined in many different ways with conflicting views on what it is and is not. The perspective one adopts in studying leadership will consequently influence how leadership is understood and evaluated[31].

One contemporary approach to leadership sees leadership as ‘a social influence process through which emergent coordination (i.e. evolving social order) and change (i.e. new values, attitudes, approaches, behaviors, ideologies, etc.) are constructed and produced’[32] and meanings are created[32-36]. This relational form of leadership promotes ideas of distributing responsibility and authority from the apex to all levels of healthcare organizations. Recent leadership theory also emphasizes a key interest is understanding the reciprocal relationship

between leaders and followers[32]. Therefore, exploring how followers perceive leadership and also how their actions impact leaders' behavior can provide a more comprehensive account of leadership in healthcare.

Hierarchically and on account of their expertise clinicians' powerful position means that attempts to improve the delivery of health care may largely depend on their behavior. Perhaps strategically engaging those at the mid-level to lead improvement efforts rather than solely relying on top down management directives, as is common in low-income countries, should be an important component of quality improvement and introduction of EBM. As those with recognizable technical (team) leadership roles often operate at the mid-level of organizations, a distributed form of leadership may be required to get all staff involved in any change effort, to set a strategic direction or vision and to develop a culture of continuous improvement in an organization or across multiple organizations[37].

Distributed leadership is defined as a constellation of roles in which each member plays a distinct role and all members work together. It is a holistic sense of leadership that is a product of leaders and followers; a co-constructed performance in collective and group context[38]. Using a distributed leadership lens, we posit that the social construction of leadership includes a relational aspect that takes into account, power, the relationships of all actors involved and the context within which they operate

2.4 Hospitals as complex organizations

This study's empirical work was situated in a hospital-based health care context. Mintzberg's[39] model of the 'professional bureaucracy' is also useful in explaining the organization of health care, which are bureaucracies dominated by professionals. Mintzberg's organizational model has five parts; (1) at the top, the strategic apex (has overall power over the organization), (2) middle level managers with authority, (3) a techno-structural element (staff supporting standard procedures but not directly performing the day to day operations), (4)

supportive staff outside of the workflow and (5) the operating core staff who produce the services[39]. The importance of each part varies greatly from one organization to another. Following Mintzberg's typology of organizations, hospitals' largest operating core is composed of professionals. Their standardized skills, autonomy and nature of training corresponds to the 'professional bureaucracy model' of organizations proposed by Denis *et.al* [40] refers to hospitals as 'messy organizations' as they are characterized by ambiguous authority relationships. The nature of hospital settings is characterized by institutional (senior) management that often appears relatively isolated from clinical care with clinicians (both nurses and doctors) seemingly uninvolved in higher level decision making roles. Their inner workings are based on the authority of clinicians who possess a high degree of control and have historically dominated health care organizations[16]. Often, hospitals in low income countries, are characterized by complex hierarchies often with poor alignment of responsibility, accountability and strict role boundaries[41].

In summary, an understanding of EBM implementation needs to take into account the socialization of professions, the identity transitions of hybrids, how leadership is enacted in routine practice and the complexity of hospitals. Further complicating this understanding are the specific organizational context, resources and culture within the Kenyan public sector that is the focus of my work, where role expectations and established implicit 'practical norms'[42] have evolved over time. Exploring these interactions and their consequences for adoption of EBM and CPGs is the overall focus of this thesis

2.5 Kenyan country context

In the previous section I have introduced the theoretical constructs and main literatures that frame this PhD work. In this section I provide a brief overview of the broader health system context of Kenya and the hospital context of Kenyan public county hospitals in which this work was based.

Kenya's population is generally young with 42.8 % of Kenyans aged below 14 years, and 3% aged 65 years and above. The country has an estimated 41.8 million people

with a per capita Gross Domestic Product (GDP) of US \$ 475 in 2013 with 45.9% of the population living below the poverty line (under 1 US dollar a day) (KNBS 2014). The majority of the population, mainly the poor, rely on the public health sector to access hospital based health service delivery. According to the latest national survey, total under-5 mortality declined from 115 deaths per 1,000 live births in the 2003 KDHS to 52 deaths per 1,000 live births in 2014[43]. Historically, the leading causes of mortality and morbidity in Kenya include communicable diseases such as malaria, HIV and AIDS, tuberculosis, diarrheal diseases and respiratory diseases. However, recently with gains made in preventing and treating communicable disease there has been an increasing contribution of non-communicable diseases such as such as hypertension, heart disease, diabetes and cancer.

2.5.1 Kenya's evolving policy context

Kenya's evolving health policy context has much in common with that of many Anglophone African countries. The late 1980s saw the adoption of measures inspired mainly by the New Public Management rhetoric[44] such as the introduction of performance management and advocacy for the "empowerment" of managers. In 1992 in the public sector District Health Management Boards (DHMBs) were created in the country's 71 then districts. In theory at least these had responsibility for: collaboration and coordination with other district level health sector actors; planning and regulation of district health systems; and resource generation through the capacity to set user charges[45]. Alongside this shift there has been an increasing discourse in policy on the need for management skills (ref), if not for professional managers, but over the last twenty years this discourse has largely focused on senior management.

The administrative roles of these boards were endorsed in subsequent National Health Sector Strategic Plans (for periods 1999-2004 and 2005-2010) while the most recent policy initiatives[46] including those espoused in Kenya's new constitution[40] suggest a continued devolution of powers to senior managers in new county administrations and their hospitals.

Consequently, the country recently (2013) transitioned into a highly devolved system with a central government and 47 semi-autonomous units called counties[47]. Under this new governance structure, the health system is organized such that the central Ministry of Health (MOH) has retained policy making and regulatory roles while responsibilities such as allocation and managing health care resources and service provision have been transferred to country health systems[47]. Such devolution is linked, at least in theory, to increasing local accountability of the health service delivery system to local government and the local population.

Under this new dispensation, the public healthcare delivery system is organized into 4 tiers, namely community, primary care, county referral hospitals and national referral hospitals (figure 1). Community services comprise all community based demand creation activities, organized around the sector's community strategy. The Primary care services are comprised of all dispensaries, health centers and maternity homes for public and non-public providers. The County referral services include primary referral facilities (previously district hospitals) operating in, and managed by a given County. These are referred to as district hospital in earlier work and county hospitals in later work and are the focus of this study. The National facilities providing tertiary referral services (comprising only 3 major hospitals) provide specialized health care.

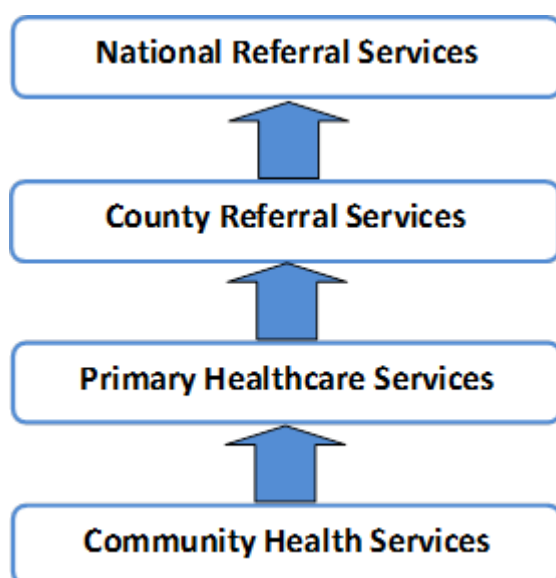


Figure 1: Service provision structure in the Kenyan public health sector

2.5.2 Brief overview of Kenya's leadership and management capacity in healthcare

From 1990 and the early years of the decade, Kenya saw a decline in health indicators with a failure of the implementation of the *Kenya Health Policy Framework Paper* (KHPFP) outlined action plans. This led to the development of the *National Health Sector Strategic Plan (NHSSP) 1999-2004*, and later *NHSSP-II (2005-2010)* which set out activities, targets and costs for health sector development from community level upwards in line with NPM. This policy recognized that training for managers throughout the health system would be necessary to ensure that plans would be realistic and achievable. There followed ad-hoc and limited trainings in leadership and management for health managers by various training institutions. These programs were offered through a mix of both the private and public sectors. They were offered by institutions such as Galilee College, Strathmore University, USIU, KMTTC, KSG (formerly KIA), KIM, AMREF, USAID, etc. but these were not easily accessible to all the health managers. Some of the reasons for the poor accessibility to the training included limited course variety, cost, duration, timing, and accessibility of delivery locations for health managers[48]. In 2008, a specific national survey aimed to document health managers' leadership and management capacity within the public and the private health sectors. While more than 90% of all health managers sampled at the district level or above viewed quality management as important for effectiveness in their job, 61% said that they felt inadequately or not prepared at all for their current role as health managers in their organizations [48].

Part of the recommendations from this report included: pre-service training of those likely to take on health leadership and management roles, urgent remedial action to equip those currently in health leadership and management positions and institutionalization of leadership and management as core competences to be

sustained and continuously improved. Both Ministries of Health have now included Leadership and Management as a priority in each of their Strategic Plans (2008-2012)[46]. At the request of Ministry of Medical Services and with wide stakeholder input, three standard curricula were also developed: pre-service, in-service and senior/executive curricula (2009).

The pre-service curricula integrate examinable and practical leadership and management modules into existing health worker curricula with USAID/Leadership Management Sustainability Programme (LMS) and has so far done this with Kenya Medical Training College (all cadres), University of Nairobi, College of Health Sciences, (all the degree courses), Egerton University (Nursing and Medical) and Nursing Council of Kenya (Standard Curricula). The progress with the in-service training programs is as shown below:

Table 1: Leadership and Management Training in Kenyan Health Sector

Name of Program	Trained	Donor	Implementer
Leadership Development Program (LDP)	715	USAID	LMS, KMTC, CHC, KNH
Health Systems Management (formerly HSS)	1,200	WHO,DANIDA, DFID, UNICEF, USAID, MOH	MOH, KSG, KMTC, GLUK, Moi Univ., AMREF (10 sites)
Strengthening Management for Health, Nyanza (SEMAH)	389	JICA	JICA and MOPHS
Strategic Leadership Development Program (SLDP)	190	MOH / MSPS	Kenya School of Government (KSG)
Senior Management Course (SMC)	196	MOH / MSPS	Kenya School of Government (KSG)
Management for Effective Health (MEH)	114	GIZ	Kenya School of Government and GIZ
Supervision Skills for Effective Health (SSEH)			

The Ministries of Health resolved that the greatest focus is on the realization that Kenya's devolution depends on strong leadership, management and governance as pre-requisites to the success of decentralization especially in the areas of resource mobilization, advocacy, financial management, planning and supportive supervision and mentorship.

The ministries further resolved to embark on the institutionalization of leadership and management as core competencies to be sustained and continuously improved. The rationale for this is, amongst others, to ensure leadership and management remains a priority well beyond the current staff and leaders within the health system and to standardize leadership and management training for quality purposes. Additionally, they provide a justification for developing a scheme of service for health managers as current schemes do not adequately and progressively define the leadership and management skills required at each level. As such this is hoped to create a working culture that values and rewards strong leadership, management and governance.

A more strategic focus in this regard is the endorsement of institutionalization of the Kenya Institute of Health Systems Management (KIHSM) by both Ministries of Health. The institute's mission is to advance and provide governance, leadership and management research, development, training and support within the health sector to improve health services and ultimately health outcomes. The institute will be overseen by an Advisory Committee, chaired by the Permanent Secretary for Medical Services or MOH. Its membership includes Ministries of Health, Kenya Medical Training College, Attorney General's Office, Ministry of State for Public Service and representatives from Development Partners. The official launch of the institute is anticipated this with the following mandate:

1. Advocate for and advance Health Systems Management (HSM)
2. Develop and provide an induction program for newly appointed or promoted health managers
3. Coordinate and provide governance, leadership and management training of health professionals
4. Develop and support a mentorship, coaching and supervision program for health managers
5. Strengthen governance of health facilities

6. Support the HSM website and exchange network for health managers

Drawing from my work in understanding why health workers in Kenyan district hospitals do not adopt EBM a number of things need to be brought forth. Kenyan public hospitals are complex settings in terms of the multiplicity of the actors and the activities embedded there in. the medical professionals in these settings appear to dominate health care delivery through their professional autonomy and clinical allegiance as is the case in most developed countries.

Additionally, it appears that health managers' lack of training and skills has now been recognized in Kenya, and a number of approaches or projects have been initiated to address these gaps. However, these trainings largely focus on technical competencies that are needed to increase the knowledge of health workers to be better managers. Part of the problem is that the trainings seldom solve practice problems and it could be that the curriculum for these trainings would benefit from a more social conceptualization of leadership and management. Furthermore, there still remains little effort to understand the day to day roles of managers, the challenges they face and how to support improved health service delivery. Learning from the practical leadership enactment in real life would help understand leadership roles as well as help in creating better training.

2.5.3 The importance of county hospitals in the health sector

The county (formerly district) hospitals serve critical roles as the first level of referral care while providing support to more peripherally located health workers in health centers, dispensaries and the community. The main functions of these hospitals often include a primary role in the training of physicians, clinical officers and nurses and the provision of on-going medical education for the county while senior staff may have regulatory roles in both the public and the private sectors [49].

Within these hospitals the senior management is made up of a hospital

management team that holds administrative power. This comprises persons in charge of administration, nursing, pharmacy and allied health services and is typically led by the medical superintendent (highlighted in green boxes within Figure 2 below). Those in charge of different clinical service units or departments are invariably clinicians and nurses who operate without any specific departmental administrators (highlighted in orange boxes within Figure 2 below). They are expected to plan and advocate for resources though they are unlikely to have direct control over a specific departmental budget. Such individuals supervise their team of frontline workers, either medical or nursing, and contribute directly to service delivery (see figure 2 below).

The lead clinician (MLM or hybrid) may have a higher degree in an appropriate medical specialty or, especially in smaller rural hospitals, still have a general medical qualification. Specialist physicians/doctors in leadership roles may have as few as 5 years total work experience (including their 3 specialist years training), although some will have many more. General medical practitioners in smaller hospitals may have only 1 year of work experience before taking charge of a department. The nurses leading departments tend to have more work experience although very few at this level have any higher training in a specific clinical specialty (for example, pediatric or surgical nursing). It is such personnel that are the focus of my work (highlighted in red circle within figure 2 below).

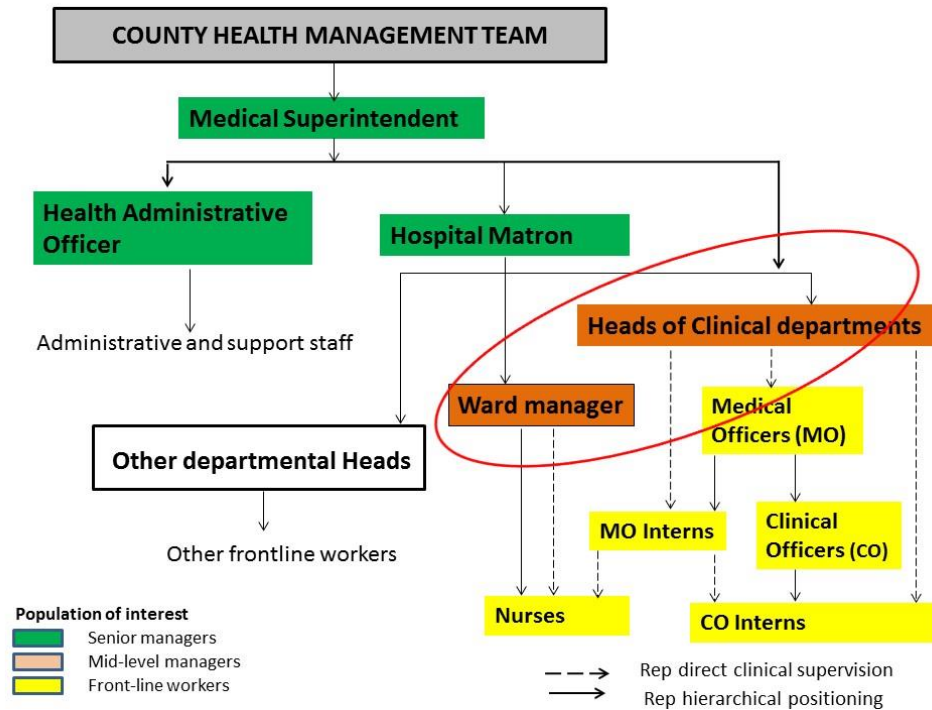


Figure 2: Generic organogram of county (formerly district) hospitals in Kenya

The county hospitals are important as they typically consume approximately 50% of funding allocated to the entire health sector[50] and in the Kenyan public sector over 50% of all staff are deployed in county hospitals. In any country, but particularly resource poor countries, it is therefore imperative that such investments are used optimally to promote better health system performance.

Unfortunately, the performance of hospitals in the public sector when assessed against measures of the quality of services delivered is often poor[3] with major gaps in the adoption of good practices. This is despite numerous recommendations made by technical agencies like WHO over many years that are aimed at improving the care provided in line with current research as part of efforts to promote the adoption of EBM. However, research in Kenyan county hospitals has shown that compliance to EBM has been poor and that efforts to disseminate WHO guidance, for example, rarely change professionals' behavior[51, 52].

In sum, how hospital providers adopt better practices either in the form of new interventions or as part of wider efforts to improve care is increasingly important. It is also particularly challenging to understand how change strategies (for example adoption of EBM) can be sustained in complex organizations such as Kenyan hospitals. This is likely to require an understanding of the influences of contextual, institutional and structural elements and the dynamics of group and individual interactions. To achieve change in specific clinical areas may depend on the acceptance of new roles that may conflict with traditional professional identities. Particularly the acceptance of clinical leadership roles and their effective enactment may, through influencing apprenticeship and teamwork, foster change such as adoption of EBM that in turn improves routine service delivery.

Having articulated some of the broad ideas that underline this PhD work, I now summarize the overarching research question and objectives

3 Summary of specific areas of work

The overall research question for this study is to;

Examine how efforts to improve service delivery in Kenyan hospitals depend on health workers' response to improvement efforts, the actions of those expected to lead; the hospital context; and the interaction among them

The specific objectives developed to address the main objective are outlined below.

1. To understand and describe factors influencing whether or not evidence based practices are implemented in Kenyan public hospitals
2. To examine, through a systematic review of literature who, what and how mid-level managers influence service delivery in health care settings and the relevance of this for Kenyan Hospitals.

3. To explore and document the nature and identity of hybrid clinical managers in Kenyan hospitals and the implications for service delivery
4. To explore and document the nature of distributed leadership micro-practices in routine Kenyan hospital contexts

4 Overview of the publications submitted as part of this thesis

This section provides an overview of the studies I undertook and their key findings linked to a narrative that outlines the progression of this work.

4.1 Paper I and paper II

4.1.1 Paper I: Documenting the experiences of health workers expected to implement guidelines during an intervention study in Kenyan hospitals

Initially, the research I undertook explored the barriers to the adoption of EBM as implemented through an 18-month intervention project in 8 counties (then district) hospitals in Kenya. The project involved the introduction of evidence-based clinical practice guidelines, promoted by training, facilitation, supervision and feedback[53]. I examined the barriers and facilitators to adoption of evidence based guidelines as part of a programme designed to improve uptake of such guidelines.

I adopted an approach based predominantly on theory helping to explain behavior from the perspective of individuals, particularly drawing on the Theory of Planned Behavior. The theory of planned behavior prompted exploration of aspects of self-efficacy/locus of control, beliefs about consequences that might follow use of the guidelines, and social influences or social norms that might affect guideline uptake (See Paper I)

Data collection methods primarily included interviews, observations and informal discussions with frontline health workers, middle and senior managers. I also held specific small-group discussions with the facilitators conducted during and at the end of the 18-month intervention project (Refer to paper I and II). Data was collected between the months of March and April 2007. The details of the sampling criteria for selection of the eight hospitals involved in the intervention study are provided elsewhere[53].

I independently coded data from the interviews and call logs into themes felt to emerge from the data (content analysis) QSR Nvivo 7 software. I compared and discussed the results with other research team members before arriving at an agreed set of themes for final analysis whilst allowing for emerging themes. Thus, the approach was a layered analysis that entailed the identification of the main and underlying causes of reported experiences and observations.

4.1.2 Paper II: Implementation experience during an eighteen month intervention to improve pediatric and newborn care in Kenyan district hospitals

I was interested in the implementing team's delivery of training, supervision, and feedback. I also explored the acceptability of supervision and feedback and the described roles of the specially introduced facilitators. The interest was in how these evolved during the study period and how these aspects of the intervention might have affected the success of clinical practice guideline uptake as a major focus of EBM (See paper II).

Of particular interest was to understand how health workers responded to the following sets of implementation activities that accompanied the complex intervention delivered to promote adoption of clinical practice guidelines. To do this I examined:

1. The implementing team's delivery of training, supervision, and feedback.
For this, I reviewed the research team activity logs and main topics of telephone contact with hospitals and facilitators.
2. The acceptability of supervision and feedback and the described roles of the facilitators, how these evolved during the study period and how these aspects of the intervention might have affected its success.

I visited all eight hospitals; both control and intervention hospitals that were initially identified by the implementation team and spent 1-2 weeks in each hospital approximately 18 months after the introduction of the intervention in these sites. Data was collected between the months of April and May 2008.

Data was analyzed thematically guided by the intervention activities and discussed the results with other research team members before arriving at an agreed set of themes for final analysis

KEY FINDINGS

The findings from this study indicated that the barriers to changing practice exist at multiple levels – the individual, the social, and the organizational level – and are multi-faceted and inter-linked. In general, the barriers identified were consistent with those reported in the literature from higher income settings but with some new themes emerging. These included differences in uptake of guidelines across the different cadres of health workers, lack of demand for evidence behind new policies and guidelines, pronounced human and material resource constraints in hospitals, and poor health worker expectations related to desire for payment (per diems) to promote implementation. These are not commonly reported from high-income settings. (Paper I).

Particularly interesting was the implementing team's ability to build relationships with the hospitals. Consequently, health workers felt not only supported but there emerged 'empowered' champions of guideline implementation. One consequence was establishment of a largely informal but nonetheless identifiable leadership grouping in each intervention site that was not apparent in the control sites. Such devolved leadership roles appeared critical in achieving the intervention's aims of promoting CPG adoption and improvement of care.

The research undertaken in this first phase (Paper I and II) was primarily based on qualitative enquiry using interviews, group discussions, review of documents and reflective exercises. There were limited amounts of time spent in the hospitals studied. I used the Theory of Planned Behavior to provide a deeper understanding

of the behavior of health workers in adopting interventions in real life but not to refine the theory or contribute to its validation. This did not limit the depth to which I explored the behavior of health workers. As I continued to understand how the health workers responded to the efforts to improve care by introducing clinical practice guidelines it became increasingly clear that this micro- level analysis would benefit from a more holistic understanding. Such an understanding requires the acknowledgement of the complex interplay between environment or context, social influence, and workplace culture, and individuals' personal attitudes and beliefs. All of these may be critical in negotiating change in health systems[54].

The insights gained from this work legitimized the need to explore organizational theories in the subsequent empiric work (theories briefly introduced in Section 1.1-1.4). The findings also suggested a key role for leaders of service units (clinical mid-level managers) in Kenyan hospitals in change processes including the introduction and local implementation of clinical practice guidelines. Learning more about such mid-level managers and their roles within hospital settings therefore appeared valuable before embarking on new empiric work.

4.1.3 Paper III: Service delivery in Kenyan district hospitals – what can we learn from literature on mid- level managers?

Subsequent to the realization of the pivotal role of departmental managers in influencing the adoption of evidence based guidelines in Kenya hospitals, I undertook a review of the literature (Paper III) to understand how my initial thoughts in this area related to those of other studies.

The main aim of the literature review was to explore the role of departmental/mid-level managers in achieving change in hospital care. A combination of both free-text and Medical Subject Headings (MeSH) terms were used. I searched PubMed, *Cochrane Library*, *DOAJ (Directory of Open Access Journals)*, *SSRN (Social Science Research Network)*, *Eldis*, *Google Scholar* and *HRH (Human Resources for Health website)*. In addition, I searched the bibliographies

of retrieved manuscripts and sought out grey literature including conference reports and editorial letters.

A data abstraction table was used to systematically document the identified literature in terms of the nature of the study, its location, research question and the key findings. Tabulated summaries were used to highlight key findings of relevance to my question – what roles might mid-level managers (MLM) play in ensuring delivery of change to promote high quality clinical services. Identified roles that appeared were listed. Similar roles were then aggregated into broader thematic roles by referring to the original full texts in an iterative process until conceptually distinct role types were defined. Articles providing insights on the specific role types identified were then re-examined in detail to help characterize role type (*see Additional file on: Main findings from the studies included in the review [12960 2012 327 MOESM1 ESM.xls](#)*)

KEY FINDINGS

The key MLM roles identified from the literature were grouped into two main categories with the main roles including: 1) mentor and coach, linked to roles as goal setter and motivator and therapist, and 2) strategist and negotiator, linked to roles as information manager and decision maker and problem solver. An overarching category included personal attributes/attitudes that promote effectiveness such as delegation, accountability, and honesty. The themes are summarized and described in more detail in Paper III in the annex.

The review revealed key roles and characteristics relevant to Kenyan clinical mid-level managers. Such roles may determine their effectiveness, perhaps important when considering their professional training needs, and their influence as clinical hybrid managers. The results highlighted some of the roles that MLM can play to help achieve delivery of high quality services through implementation of EBM in public hospitals in settings such as Kenya. The results of the review also suggested that clinical mid-level managers often have significant professional autonomy within their work and organizational

setting. Such autonomy is increasingly resulting in calls for greater accountability with clinicians having to accept greater managerial responsibility.

Arguably this is resulting in the emergence of the hybrid clinical manager across health care settings globally. Thus it is important to understand the micro-processes involved when clinicians take on managerial roles and the attempts they make within that role to influence peers and followers towards change and improvement of service delivery. This review thus provided an opportunity to clarify hypothesized roles in this boundary spanning position and was useful in informing the empiric work presented in Paper IV and Paper V.

4.1.4 Paper IV: Clinical managers in Kenyan hospitals: Hybrid roles, identities, institutional logics and their implications for improving health services in low income countries

In the introduction section of this thesis I highlighted relevant theoretical literatures which were useful in examining my study objectives. This section of the thesis builds on this theorization by particularly considering how identity work theory and institutional theory are useful in understanding the transitions of clinicians into hybrid clinical-manager roles. I argue that these theoretical considerations are instrumental in informing the agency of the clinician managers in their hybrid role.

Institutional logics are the belief systems that shape and influence the meaning of reality and explain interactions between normative societal structures and individual behavior[28]. The professions are represented as occupations that are well organized with each member retaining a particular occupational identity. Thus, traditionally, professions are assumed to have one dominant (professional) logic, which influences how professionals act and understand themselves.

Introducing alternative managerial logics creates contradictions when the logics cannot be reconciled[55]. However, the process of hybridization allows incorporation of the new logic (like managerialism) into the dominant one (like professionalism) giving the hybrid role legitimacy[28, 56].

I examined how clinical managers managed the tensions arising from their role situated between two competing institutional logics[56, 57]. I argue that clinical managers struggle to make sense of their identities, performing identity work, whilst mediating between clinical care roles and management roles. The interest was in answering two important questions: “what does it mean to be a clinical hybrid in the middle level of Kenyan county hospitals?” and “how much agency is associated with such a role?”

To answer these questions, I conducted an ethnographic case study of two purposively selected county hospitals. A fuller description of such hospitals is provided elsewhere[49]. My analysis focused on 8 hybrids (4 consultants and 4 nurse managers) from the obstetric/gynecology and pediatric departments as well as frontline staff working in these departments. I also interviewed a total of 51 frontline workers and conducted over 480 hours of observations across both hospitals. I coded and managed data using NVIVO 10 (QSR Pty Ltd 1999-2012) and analysed data following Gioia’s [58] inductive research notes and Corbin & Strauss’s [59] methodology in developing grounded theory. (See Paper IV)

KEY FINDINGS

Results show that Kenyan hybrid clinical managers are unprepared for managerial roles and struggle to reconcile them with their professional roles and identity. I found that the different emerging hybrid identities were a result of how clinical managers interpreted managerial and professional logics.

Drawing on a hybrid typology developed in UK health care [25] I explain how willing hybrids engage with managerial roles while reluctant hybrids found managerial roles incompatible with the dominant professional role. In my work I noted a third type of hybrid that I labelled ‘ambivalent’. They were undecided about

whether to commit to managerial or hybrid roles but I was unable to establish if such hybrids were still in transition or truly ambivalent. The few clinicians who accepted managerial roles (willing hybrids) used managerial ideas and tools as a way to improve health care and exert more agency in this role. Reluctant hybrids on the contrary, saw managerial roles as an imposition on their professional identity and expressed little agency within this role.

Furthermore, wider institutional norms provided room for legitimizing either a reconstruction of emerging role identities or maintenance of traditional role identities. For the former, this was a result of willing hybrids deviating from the dominant nature of professional institutional logics to accommodate managerial institutional logics in their practice. Reluctant hybrids on the other hand, engaged in social sanctioning of professional institutional logics as the introduction of a managerial logic was perceived as a threat to their identity.

Linked to this was the importance of practical norms[42] within local contexts in framing hybrids' identities. There existed major discrepancies between the official norms of the public service and social norms as well as the behavior of the 'elite' professions and the 'assisting' professions. These norms included consultants' discretion over how many hours they worked, their physical availability in the hospital and unstandardized ways of working. Additionally, there was often a failure to confront peers over poor practice, owing to highly hierarchical professional logics characterized by in-group collegiality (Refer to Paper IV). Therefore, willing hybrids' creative agency in imagining and strategizing alternative ways of working, often diverging from existing local hospital norms, legitimized their identity. While the reluctant hybrids lacked such agency, their inertia perpetuated local practical norms which in turn legitimized their identity.

This paper is, to the best of my knowledge, the first to address questions about clinical-managerial hybridization in a LMIC (Kenya). Although this work compliments extant international literature on clinical hybrids, it is important to note that Kenyan clinical hybrids act as street level bureaucrats [60] often enacting

alternatives to what is expected. I therefore contribute to existing theoretical literature by introducing the concept of practical norms[42] as a social mechanism inherent in clinician-manager transitions and behaviors in Kenya.

In summary, the work revealed that clinicians are appointed as managers without any job orientation and therefore undertake identity work to make meaning of their hybrid identity. Understanding how clinicians construct their role identity has particular implications for current approaches to health managers' training in Kenya, which largely focuses on technical competencies but seldom addresses practice problems, identity work or relationship management. Furthermore, a focus on clinician manager transitions, ensures that role capacities are more context specific and practically relevant with an aim of improving the agency of hybrids.

4.1.5 Paper V: A distributed lens on middle level clinical leadership in Kenyan public hospitals

As well as their more managerial roles I was also interested in the leadership micro-practices of the hybrids in their departments.

This interest stems from earlier findings of EBM implementation experiences in Kenyan county hospitals that revealed the importance of leadership (champions) in influencing teams at the operational level. Furthermore, the literature review on the roles of middle managers in healthcare settings (Section 4.3) revealed that these personnel could have considerable authority and autonomy within specific clinical areas; with the ability to lead and manage their teams to adopt or reject proposed changes in practice.

For reasons I outlined in Section 1.1 and based on my earlier findings it was clear the conceptual approach to exploring leadership needed to move beyond consideration of single individuals at the apex of organizations. Instead it needed to encompass other likely leaders within all levels of the hospital. The strategies and processes employed to achieve such distributed leadership are mainly through

spontaneous collaboration shaped by the interaction of leaders, followers and the context[61]. Distributed leadership is expected to involve clinicians leading clinical teams and participating with other clinicians and non-clinicians in developing and executing strategy to improve organizational and health system performance.

A key interest of the final part of my work was understanding how leadership acts are framed and how this may potentially influence leadership practice. Thus my research question was; 'how are clinical leadership micro-practices at the middle level of hospitals (clinical departments) negotiated and enacted?' A related objective aimed at exploring social relationships between the leaders, team members and their context (relational leadership)[32] (Refer to Paper 5).

Using an ethnographic case study of 2 county hospitals in Kenya, my analysis focused on the same 8 mid-level managers (4 clinical consultants and 4 nurse managers of different service areas). Data used were from interviews with the mid-level managers, 6 senior managers and 51 frontline workers. These were complemented by data drawn from the 480 hours of observation across both hospitals in three months ethnographic observation[62]. I coded and managed data using NVIVO 10 (QSR Pty Ltd 1999-2012) and inductively analyzed it in three iterative rounds following Gioia's (2013) inductive research notes and Corbin & Strauss's (2014) grounded theory methodology (See Paper V).

KEY FINDINGS

First, we found clinical leadership in Kenyan district hospitals was heavily affected by taken-for-granted individualised concepts of leadership and top-down authority, as well as the dominance of medical professionals over the health care field[12] as is common other LMIC health care systems and in health care globally more generally [16, 61, 63].

Secondly, leadership requires power[64, 65] and in Kenyan health care professional 'expert power' [66] anchored in clinicians' specialized technical knowledge, was often uncontested.. Such professional power is so deeply embedded and taken for granted in health care, that the associated limitations it propagates appeared to simply be accepted. Power and politics may undermined the development of more distributed forms of leadership [67], which would require power to be exercised at all organizational levels and by different professional cadres[68]

Thirdly, leader-follower relations occurred along specific cadres and dictated by professional power and social identities, with little multi-disciplinary interactions nor conjoint agency[38]. Junior doctors expected consultant to be knowledgeable experts able to teach and mentor them. Nurses expected nurse manager to be knowledgeable, although placed more emphasis their ability to be empathetic, role model and facilitative change. Yet distributed leadership requires collaboration across professional boundaries and dismantling traditional interprofessional hierarchies to engage in multi-professional teamwork. This, in turn may be dependent on building trust, respect and inspiring common goals.

An emerging and related observation linked to our discussion above is that clinical leaders require training and development to understand and address the contextual and political factors constraining their ability to make changes and improvements in health care systems. Software skills, including understanding how to draw on different sources of power, engage in local politics and cultivating facilitative relationships models are important.

Finally, mid-level clinical leaders have intimate knowledge of their organizations and have the ability to use informal social networks to negotiate change to influence things in ways that senior leaders often do not[7, 57, 69]. Middle managers spend most of their time communicating information as a useful resource in connecting with other[70] and developing shared meanings[71]. However, in our study poor communications structures between senior and middle-level leaders and mid-level

managers and their teams resulted in individualised, professionally dominated models of leadership that often produced apathy and inertia among followers.

In summary, I demonstrate that leadership in Kenyan hospitals is a complex relational process, whose meaning is constantly negotiated, and influenced by and in turn influencing the context within which it occurs. I challenge mainstream clinical leadership studies that tend to endorse competency-based and individualised leadership development whilst overlooking the value of relationships, interactions and localized norms. Thus the emphasis is on revising the concept of leadership as distributed and relational rather than individualized and hierarchical. There is also value in acknowledging the influence of the unique institutionalized norms of clinical professionals and 'practical norms' characterising African health care contexts. This will have practical relevance for developing relevant leadership training and in cultivating innovators and change champions.

5 Discussion

This section identifies the main areas of interest developed by the series of studies included in this thesis and briefly described in the preceding section. It demonstrates how poor adoption of evidence based medicine by healthcare workers is a consequence of professional autonomy, institutional and practical norms and the range of abilities MLMs must have to deliver change.

Furthermore, I demonstrate how findings from a literature review on roles of middle-level managers in healthcare organizations support the proposition that distributed leadership and management at operational levels is of value in leading organizational change. I empirically examined the transition process of clinicians to hybrid roles and the agency expressed by the resulting three types of hybrids. I also explored the practice and meaning of their leadership and its influence on peers, juniors and service. The contributions, implications, limitations and conclusions made by this body of work are presented towards the end of the chapter.

The findings suggest that if hospitals managers adopted some key actions the likelihood of EBM adoption would be increased. Prior research in settings with parallels to the Kenyan context suggests that such actions might include recognition (including promotion) of health workers' efforts[72, 73]. Similarly, delegating authority and accountability to practice leaders (unit heads)[74, 75], developing team-based management[76, 77] and using non-confrontational means of addressing errors and non-performers[78, 79] might all have positive effects on improving implementation behavior.

To achieve change, health workers require leaders to empower and motivate others whilst articulating a clear vision, build and foster trusting relationships, adhere to accepted values and standards of behavior, and promote acceptance of change[80]. This kind of leadership will require the leaders to 'negotiate' and use both their formal and informal power through social networks and interactions within the organization. Such leadership is therefore inherently relational[32].

These findings are also supported by results from the literature review that revealed the most important roles for middle managers were decision-making or problem-solving, strategist or negotiator and communicator. Findings also underlined the importance of personal attributes of a good manager, which included interpersonal skills, delegation and accountability, and honesty (Paper III).

Therefore it appears that understanding the complex interplay between environment or context, social influence, and workplace culture, individuals' personal attitudes and beliefs are all critical in negotiating change in healthcare organizations [54]. The aim of my doctoral research was to understand and explain how health workers respond to improvement efforts by exploring implementation of EBM in county hospitals. I particularly explored the actions of those expected to lead, the hospital context and the interaction between them to determine whether and how change occurs. The emerging importance of local leadership at the middle level of hospitals in influencing actual behaviors of frontline workers was key. This viewpoint provided an alternative understanding of clinical leadership in practice. Leadership studies in most LMIC mainly emphasize individual leadership styles and traits which offers a restrictive understanding of leadership in practice. I suggest that a distributed leadership perspective would be more useful because it emphasizes context, interactions, influence, mentorship and role modelling in complex contexts of professionalized bureaucratic organizations.

Findings from this work suggest willing hybrids inclined to influence change in the departments they head were uncommon. Linked to this was the role of institutional environments and hospital structures in undermining change and improvement efforts. Contributing factors in hospitals included lack of explicit standards and instead a reliance on implicit practical norms and street level bureaucracy that were typically antagonistic to changes such as implementation of EBM and other improvement efforts. Practical norms are alternative routines,

deviating from official norms and logics that are rarely formally defined but are socially legitimate[42]. Particularly, poor communication structures, unsupportive supervision and poor clinical accountability mechanisms were normative systemic problems in the hospitals, so deeply embedded that they had become taken-for-granted culture with limited space for any change agency. Notably problematic was the lack of leadership at the operational levels where implementation of clinical guidelines was targeted (Paper I). Furthermore, clinical service heads at this level lacked clear job descriptions articulating their hybrid responsibilities and they often lacked (or failed to enact) capacities to lead and manage their departments. So more collective support and training for these clinical professional leaders would be welcome.

Research reveals that roles of mid-level managers in change and improvement efforts go beyond technical skills and competencies to include soft and persuasive skills such as interpersonal skills, social and political intelligence and trust[36, 81]. Particularly relevant for Kenyan clinical mid-level managers is the ability to be influential knowledge brokers who package information both for the senior and junior levels in an accurate, comprehensible and convincing manner[55]. Therefore, only clinical heads who actively mentored their peers and juniors, motivated them and modelled the way forward, were able to effect improvements in their departments. Overall, identity work, the role of strategizing innovative and alternative practices as well as negotiating for resources for their departments [82, 83] is what distinguished the successful leaders and managers from those who showed inertia in their performance[25].

In keeping with the clear indication that managing relationships was important to achieving change, it emerged that clinical/expert power on its own was often not successful in influencing others towards change. Additionally, failure to engage more than one source of power as well as politics was often associated with inertia manifesting as limited negotiating and strategizing roles of the hybrids. This therefore points to the importance of leaders being knowledgeable of their social contexts and local practical norms and the ability to imagine and pursue

alternative ways of doing things that can be employed when institutionalized norms are unhelpful or constrain their implementation of best practice. Within leadership practices, mentoring and coaching, role modelling, brokering information, strategizing and negotiating, solving problems and resolving conflicts are useful roles for encouraging better practices [84]. However reports from both trainers and trainees revealed that these areas are rarely the subject of leadership and management trainings or higher professional training in Kenya[85]. Engaging clinicians in managerial roles is, however, a complex process going beyond training. It requires an understanding of and ideally support for the identity work processes of hybridity, the influence of complex hospital contexts and the implications of local practical norms in this process. In this regard mentorship from successful hybrid managers might be important as hybrids grow into their role.

This work offers a key empirical contribution in the field of healthcare leadership for low income countries, particularly in Africa. To the best of my knowledge it is one of the first studies in Kenya addressing questions about clinical hybridization in a different contextualized setting of LMICs (Kenya). It however complements work from other similar African contexts explore leadership in healthcare contexts[86].

5.1 Limitations

At the time of development and conclusion of this study, the results were generally typical of and applicable to most Kenyan county hospitals. However, the research activities coincided with the period during which the health system was transitioning following Kenya's devolution of government. Therefore, the results may not be completely generalizable to all Kenyan public county hospitals particularly as regards to hospital structures and processes. However, even though generalizability was not the intention, the rich description this study has presented still provides a valuable contribution to the knowledge base of

professional and implementation behaviors in complex clinical settings in Kenya.

This study shadowed the actions of mid-level managers employed in public hospitals who also ran private clinics. Studying these managers in these private clinical contexts, or in faith based health organizations would have provided a richer description with the potential to further explore the effects of contexts and practical norms. This would be an important area for future research. Linked to this, is the cross-sectional nature of this study that limited a more extensive examination of the evolution of relevant contextual influences e.g. NPM, Kenyan medical professionalism and practical norms.

This would be an important area for future research. Linked to this, is the cross-sectional nature of this study that may have benefitted from a fuller examination of the evolution of relevant contextual influences e.g. NPM, Kenyan medical professionalism and practical norms.

5.2 Implications

What have I demonstrated from this work? Implementing change and improvements in complex health care settings involves intricate interactions that extend beyond individual behavior change to implicate local contexts, institutional and practical norms [28, 32, 42, 87].

Furthermore, simple expectations that the logic of EBM will influence clinicians in mid-level management and leadership roles may be challenged by their clinical autonomy as part of their dominating professional identity. This, combined with disabling contextual and structural factors may prevent most clinicians from identifying with and engaging in the managerial or leadership roles that are required to produce change and that go beyond demonstrating their technical skill. In conducting this work, I developed two mid-range theories to explain how clinical hybrid managers may make identity transitions and how their ensuing agency in leadership micro-processes evolves within complex contexts of organizational structures and relationships. While this is the first work of this type

in East Africa it is theoretically generalizable to other contexts beyond Kenya. However, the practical implications may be more context specific bearing in mind the implications of relevant and powerful practical norms. In this study I have discussed the complex transition processes of clinicians into managerial positions through the lenses of identity work and institutional logics approaches. Whilst the results have been illumination, there are implications for further research. First there are questions regarding the sustainability and durability of hybridization[88] but with a focus on the influence of (changing) context and practical norms. Linked to the idea of durability of hybridization is the need to explore further what this means for specific analysis of the identity work of the emerging ambivalent hybrids. Understanding why and how their transition process is different and the subsequent implications of this for service delivery is key.

Second, there would be value in understanding and tackling unsupportive institutional and social environments. This would have bearing on formalizing new role identities and supporting change efforts in hospitals typically characterized by dominant professional logics and unhelpful practical norms. While this study is a first step in these endeavors, more research on how to enhance the agency of professional actors as potentially powerful influencers of sustained institutional and organizational change in Kenyan and other LMICs' hospitals contexts is recommended.

Third, this study focused on the importance of the actions of those expected to lead improvement efforts in public hospitals in Kenya through a distributed leadership lens involving multiple individuals and context, which, to the best of my knowledge, has not been applied to extant leadership studies from LMICs. It would be interesting to compare empirically tested results of clinical leadership studies from other settings in LMICs, particularly African settings where decentralization efforts take varying forms and have had variable success[89, 90]

Finally, future research ought to explore how to develop capacities and strategies that are most relevant to health care managers in African settings. Building these competences ought to go beyond the technical leadership and managerial competencies to explicitly include the softer (emotional and relational) skills, identity transitions and power that are critical and valuable additions in building clinical leadership capacity. Further work aimed at exploring potential causal linkages between effective leadership and hospitals' performance and how to foster leaders with the right abilities to promote change would be invaluable.

6 Conclusion

This thesis aimed at understanding the interactions between health workers, hospital contexts and the actions of those expected to lead change in service delivery in Kenyan county hospitals. Firstly, I have provided new knowledge underlining health worker behavior in uptake of interventions and change by using the theory of planned behavior in predicting individual's intentions and actual behavior. I further explained how clinical managers reconcile their clinical identities with their managerial roles through identity work and an institutional logics approach. Their agency in this role has been expounded by exploring leadership processes in complex health care settings through a distributed leadership lens whilst acknowledging the importance of power, relationships and emotions in this process.

Secondly, the methodological advances throughout my study's journey have been well demonstrated. Despite its benefit in informing the conceptualization and illustration of the complex processes of change, management and leadership, theory informed research is rarely used in implementation research in low income countries[91]. Central to my contribution are the potential value of two mid-range theories which incorporate plausible social mechanisms attempting to narrate how the hybridization of clinical-managerial roles and identities and leadership processes are embedded in institutional and structural contexts, as

well as everyday local practical norms. I believe the work has produced valid and theoretically generalizable findings despite some limitations and emphasizes the importance of my reflexive insights as the researcher.

Finally, the practical implications include an understanding that identity work ought to be complemented by senior management support, institutional reforms (e.g. attempting to reform unhelpful cultures and outdated professional norms etc.) and embracing structural improvements (e.g. clear job descriptions, explicit career paths and standardization of performance expectations). Furthermore, a social conceptualization of the hybrid managerial role journey offers useful insights to inform training curricula so that role capacities are more context specific and practically relevant. Specifically, the emerging interplay of leaders' soft skills on influenceship ought to inform early professional training, currently largely focused on technical competencies but seldom addressing practical problems, and the related management of emotions, politics and the ability to influence and persuade. This has implications in how clinical managers identify with their role and offers practical lessons for hospitals in cultivating innovators and change champions

7 Reflection from the PHD Journey

Initial work of this PHD (Paper I and II) focused on exploring how desired practices (EBM) might be successfully introduced and the barriers to this mainly using psychological theory. The findings indicated that the barriers to changing practice exist at multiple levels – the individual, the social, and the organizational level – and are multi-faceted and inter-linked. Thus, there was an indication of the importance of considering implementation at a number of levels simultaneously such as personal, structural, or organizational factors that influence practice. While there was an acknowledgement of consideration implementation at various levels, there was no attempt at understanding the interplaying mechanism of agency, structure, context and social interactions and how this may influence implementation behavior[54].

However, on reflection, an application of findings from the hybrid work in the second phase of the PHD would be useful in explaining why clinicians resist EBM. Firstly, an important consideration for implementers is understanding that clinicians perceive EBM as a form of regulation and as a challenge to their autonomy particularly because it is commonly structured as an attempt at making clinical work more manageable and governable by setting expectations on the speed, efficiency and productivity of the work unit. Thus particular attention to how guidelines are designed and communicated to intended users would be beneficial[6].

Linked to the above is the merging importance of the identity of professions and understanding that the training and socialization process of health professionals provides a significant challenge in institutionalizing quality improvement initiatives in hospitals. Whilst using MLMs in leading improved service delivery in their departments is strategic, role positioning does not necessarily translate to role enactment. Furthermore, the variation in intervention uptake varied across the hospitals depending on both structural and social context, an important consideration that was not explicitly reported in the initial work but was nonetheless acknowledged. Therefore it is crucial to understand the complexities encountered in not only constructing hybrid roles but in exercising agency and change towards improving health service delivery[92].

Guideline implementation experiences indicated clinicians probably require from administrators or supervisors leadership that is 'transformational, requiring leaders to be able to empower and motivate them, define and articulate a vision, build and foster trust and relationships, adhere to accepted values and standards, and promote acceptance of change'[80]. While most senior leaders in the hospitals were supportive of the implementation of the guidelines by providing structural resources and delegating responsibilities to MLMs to lead the process, in subsequent work it emerged that this delegation was often limited. Using a distributed leadership lens it emerged that medical and nursing leadership occurred in parallel and how only doctors in leadership roles were able to directly

influence behaviour among their medical colleagues, using interpersonal skills, power and professional knowledge and expertise.

Therefore, strategies to improve implementation behaviours in clinical settings can benefit from understanding the role and use of power in influencing change and behaviour. For instance, clinical leaders may use the position of power associated with their formal role, but the stronger source of their influence lies in their personal power. Such personal power is based upon their perceived credibility and integrity, together with the continuing trust of their colleagues[93]. These factors allow them to become opinion leaders

My work has indicated the importance of considering implementation at a number of levels simultaneously such as personal, structural, or organizational factors that influence practice. More importantly it has hinted at the invaluable contribution of role identity, organizational context and social mechanisms in influencing not just individual behaviour but that of an entire organization. The social construction of leadership thus provides an entry point to drive change in organizations through the formal and informal influence of those in authority. Therefore, implementation research can draw strategies and lessons from the wider disciplines of organizational management as well as behavioural sciences.

During the research process, my reflexivity on my role as a researcher was key during data collection and data analysis stages. Particularly because of the embedded nature of the research approach in phase two of the work, I was careful about introducing my own biases during both interviews and observations. To do this, I held reflective meetings with colleagues doing similar research in similar hospitals to mainly discuss and self- appraise how we approached data collection, recording and questioning what we were learning.

Furthermore, more the data collection process was also designed to increase validity by triangulating between observations, interviews and informal chats. The data collection strategy also included feedback loops that were involved providing

preliminary analyses and interpretations to teams and individuals to ensure collective understanding. Following these long periods of interactions in the hospitals, I found that my primary identity was solidly that of a researcher the close relationships I had established with some of the staff and managers led me to feel like part of the team. During reflective interviews with the hybrids, some hybrid managers described how my interviews and chats with them had led them to think differently e.g. learning to frame problems differently, attempting to be more patient with their juniors etc. This in turn increased my motivation in undertaking such forms of research which encourage innovative /alternative framing of research methods, appreciation of the role of cortex and co-construction of knowledge

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